



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

217/524-3300

October 24, 2013

CERTIFIED MAIL

7012 0470 0001 2999 2278

7012 0470 0001 2999 2285

Michael J. Weis
Site Manager, DOE Fermi Site Office
United States Department of Energy
Fermi National Accelerator Laboratory
Kirk Road and Pine Street
Post Office Box 2000
Batavia, Illinois 60510-0511

Nigel Lockyer, Director
Fermi Research Alliance, LLC
Fermi National Accelerator Laboratory
Kirk Road and Pine Street
Post Office Box 500
Batavia, Illinois 60510-0500

Re: 0890105010 --- Kane County
Fermi National Accelerator Laboratory
IL6890030046
Log No. B-131R-M-5, Class 1 Modification
RCRA Permit File
Permit Approval

Dear Mr. Weis and Mr. Lockyer:

This is in response to a submittal from Mr. Michael J. Weis, Site Manager, Fermi Site Office, Department of Energy (DOE). The submittal has been reviewed as a request to modify the Resource Conservation and Recovery Act (RCRA) Permit for the above-referenced facility - DOE's Fermi National Accelerator Laboratory (Fermilab).

Specifically, the modification request (Log No. B-131R-M-5), dated October 11, 2013 and received on October 16, 2013, seeks to modify the RCRA Permit and the Part A permit application to update the Fermilab authorized signatory to the RCRA Permit. Specifically, Mr. Nigel Lockyer is now the Director of Fermilab having replaced Dr. Piermaria J. Oddone.

The following items were included in the submittal in support of the aforementioned request:

1. Illinois EPA Permit Application Form LPC-PA23;
2. U.S. EPA RCRA Subtitle C Identification Form (EPA Form 8700-23);
3. U.S. EPA Hazardous Waste Information Form (EPA Form 8700-23);
4. Certification of Authenticity of Official Forms;
5. 39(i) Certification for a Legal Entity for Operating a Waste Management Facility;
6. 39(i) Certification for a Person for Operating a Waste Management Facility;
7. Site Topography and Facility Maps;
8. Facility Drawings;
9. Facility Photographs;
10. Other Environmental Permits; and
11. Fermilab list of notification contacts, updated September 2013.

The Illinois EPA has reviewed the subject submittal as a Class 1 modification request and has determined that the modification proposed by DOE/Fermilab is acceptable. This determination is based on a review of (1) the RCRA Permit issued to DOE/Fermilab on February 10, 2011 (Log No. B-131R-M-4), (2) the regulations [35 Ill. Adm. Code Subtitle G] and (3) the information contained in the aforementioned submittal.

Attached please find a revised RCRA Permit. The signature page of the RCRA Permit has been updated to reflect the modification of the RCRA Permit previously issued by the Illinois EPA on February 10, 2011 (Log No. B-131R-M-4). In addition, Page iii has been expanded to indicate that Permit Modification B-131R-M-5 is now part of the approved permit application. This letter and the RCRA Permit should replace the existing RCRA Permit previously issued by the Illinois EPA.

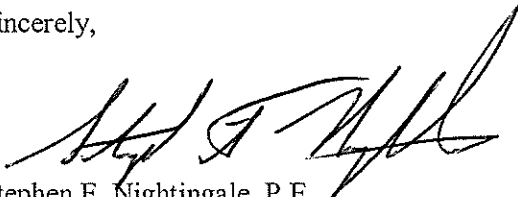
Pursuant to 35 Ill. Adm. Code 703.281(a)(2), a notice of the modifications shall be sent to all persons on the facility mailing list, maintained by the Agency per 35 Ill. Adm. Code 705.163(a)(4), and the appropriate units of State and local government, as specified in 35 Ill. Adm. Code 705.163(a)(5). This notification must be made within ninety (90) calendar days after the change is put into effect.

Operations at the subject facility must be conducted in accordance with the approved RCRA Permit originally issued to DOE/Fermilab and all subsequent modifications.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

If you have any questions concerning this permit, please contact John Riekstins of my staff at 217/524-3309.

Sincerely,



Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

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JR JVN
Attachment: Modified RCRA Permit

cc: USEPA Region V – Gary Victorine (w/attachment)



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

HAZARDOUS WASTE MANAGEMENT RCRA PERMIT

0890105010 -- Kane County
IL6890030046
Fermilab
RCRA Log No. B-131R-M-5
RCRA Permit File

Issue Date: June 30, 2006
Effective Date: August 4, 2006
Expiration Date: August 4, 2016
Modification Date: October 24, 2013

United States Department of Energy
Fermi National Accelerator Laboratory
Attn: Michael J. Weis, Site Manager
Fermi Site Office
Kirk Road and Pine Street
Post Office Box 2000
Batavia, Illinois 60510-0511

Fermi Research Alliance, LLC
Fermi National Accelerator Laboratory
Attn: Nigel Lockyer, Director
Kirk Road and Pine Street
Post Office Box 500
Batavia, Illinois 60510-0500

A modified RCRA permit is hereby granted pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (Ill. Adm. Code) parts 702, 703, 705, and 720 through 729 to the Fermi National Accelerator Laboratory (Fermilab) to construct/maintain and operate a waste management facility involved in the storage of hazardous waste. Fermilab is located at Kirk Road and Pine Street, Batavia, Illinois.

This permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in the Illinois Environmental Protection Act and Title 35 Ill. Adm. Code Parts 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (415 ILCS 5/39) grants the Illinois Environmental Protection Agency the authority to impose conditions on permits which are issued.

The permit is issued based on the information submitted in the approved permit application identified on Page iii of this permit and any subsequent amendments. Any inaccuracies found in the information provided in the permit application may be grounds for the termination or modification of this permit (see 35 Ill. Adm. Code 702.187 and 702.186) and potential enforcement action (415 ILCS 5/44(h)).

If you have any questions regarding this permit, please contact John Riekstins at 217/524-3309.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

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JR Jkr

RCRA PART B PERMIT
ISSUED TO
UNITED STATES DEPARTMENT OF ENERGY
FERMI NATIONAL ACCELERATOR LABORATORY
BATAVIA, ILLINOIS
0890105010 – KANE COUNTY
IL6890030046
PERMIT LOG NO. B-131R-M-5

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE(S)</u>
List of Attachments	i
General Facility Description	ii
List of Plans and Documents Contained In the Approved Permit Application	iii
Section I - Containers	I-1 - I-9
Section II - Standard Conditions	II-1 - II-13
Section III - Corrective Action	III-1 - III-10
Section IV - Reporting and Notification Requirements	IV-1 - IV-3
Section V – Special Permit Conditions	V-1 – V-2
SFN:JR\0890105010-RCRA-B131RM5-Approval.doc	

LIST OF ATTACHMENTS

<u>ITEM</u>	<u>PAGE</u>
Attachment A - Waste Lists and Hazardous Waste Identification Number	A-1 - A-1
Attachment B – Inspection Schedule for Building WS-3	11 pages
Attachment C - Closure Certification Form	C-1 - C-1
Attachment D – Site Plan	D-1 - D-2
Attachment E – Chronological Summary of RCRA Corrective Action Activities	E-1 - E-6

SFN:JR\0890105010-RCRA-B131RM5-Approval.doc

GENERAL FACILITY DESCRIPTION
U.S. Department of Energy
Fermi National Accelerator Laboratory
Batavia, Illinois
IL6890030046
STATE ID #0890105010

The Fermi National Accelerator Laboratory (Fermilab) facility conducts basic research into high energy physics. As a byproduct of these research activities, the Fermilab facility generates several forms of waste. These include (1) wastes classified as hazardous under the Resource Conservation and Recovery Act (RCRA) which are subject to Illinois Environmental Protection Agency (Illinois EPA) regulation; (2) mixed (radioactive and hazardous) wastes, the hazardous component of which is subject to Illinois EPA regulation and the radioactive component of which is subject to regulation under the Atomic Energy Act and DOE orders; and (3) wastes subject to U.S. Environmental Protection Agency (EPA) regulation under the Toxic Substances Control Act (TSCA). All of the afore-mentioned wastes are generated by the on-site development, production, and maintenance of materials and equipment that support the operation of a series of proton accelerators and associated experimental areas.

Fermilab has been a RCRA regulated facility under interim status since 1980 and under its Resource Conservation and Recovery Act (RCRA) Part B Permit since October 1991. The waste management activities include storage of waste in containers.

Fermilab is an existing facility owned by the U.S Department of Energy (DOE) and operated under contract with the Fermi Research Alliance, LLC. Fermilab occupies 6,800 acres near the western edge of the Chicago metropolitan area, 35 miles west of downtown Chicago. The facility is located just east of Batavia, Illinois with its main entrance on Pine Street. It lies in western DuPage County and eastern Kane County, the western-most of the six collar counties surrounding Chicago. The mailing addresses for the U.S. DOE and Fermi Research Alliance, LLC are as follows:

U.S. Department of Energy
Fermi National Accelerator Laboratory
Kirk Road and Pine Street
P.O. Box 2000
Batavia, Illinois 60510

Fermi Research Alliance, LLC
Fermi National Accelerator Laboratory
Kirk Road and Pine Street
P.O. Box 500
Batavia, Illinois 60510

LIST OF PLANS AND DOCUMENTS CONTAINED IN THE
APPROVED PERMIT APPLICATION

Pursuant to Illinois hazardous waste management requirements, Fermilab has prepared the following formal plans and documents covering the various facets of the design, operation and monitoring its hazardous waste management unit. The issuance of this permit on June 30, 2006 approves the plans and documents identified below unless otherwise indicated in the permit.

The Permit Renewal Application was dated April 24, 2001 and received by the Illinois Environmental Protection Agency (Illinois EPA) on April 26, 2001.

Each plan or document regarding all aspects of this permit and its location within the approved Permit Renewal Application are as follows:

<u>Plan or Document</u>	<u>Location in the Approved Permit Application</u>
1. Waste Analysis Plan	Section C.2
2. Inspection Plan for Building WS-3	Section F.2
3. Contingency Plan	Section G
4. Closure Plan	Section I
5. Training Program	Section H
6. Design and Operating Plans, Specifications and Procedures for Container Storage	Section D

Since the issuance of the renewal permit, the following additional documents have been submitted and are now part of the approved permit application:

<u>Document</u>	<u>Date</u>	<u>Date Received</u>
Permit Modification B-131R-M-1	12/04/2006	12/08/2006
Permit Modification B-131R-M-2	2/26/2010	3/03/2010
Permit Modification B-131R-M-3	5/27/2010	5/27/2010
Permit Modification B-131R-M-4	1/26/2011	1/31/2011
Permit Modification B-131R-M-5	10/11/2013	10/16/2013

Section I: CONTAINERS

A. SUMMARY

Containers of hazardous wastes shall be stored in the hazardous waste storage building (Building WS-3). The hazardous waste storage building consists of an enclosed, roofed steel building and a diked concrete base. The concrete shall be coated with a chemical resistant epoxy. The hazardous waste storage building shall have a containment capacity of at least 5547 gallons.

Fermilab may store solid and liquid wastes in Building WS-3 as identified below and specified in Table 2, Page 35 of Appendix 11 of the approved Permit Application. Wastes include hazardous and mixed wastes along with wastes contaminated with polychlorinated biphenyls (PCBs).

<u>Hazardous Waste Identification #</u>	<u>Waste Description</u>	<u>Maximum Allowable Inventory</u>
D008	Lead Contaminated Liquids	1,100 Gallons
D008	Lead Contaminated Solids	6 Cubic Yards
D009	Mercury Contaminated Solids and Devices	2 Cubic Feet
D002	Mixed Waste Electrolyte Solution	20 Gallons
D008	Mixed Waste Lead Solids	6 Cubic Yards
N/A**	PCB Contaminated Liquids	200 Gallons
N/A**	PCB Contaminated Solids	37.5 Cubic Feet

** Please note that PCB wastes are subject to U.S. Environmental Protection Agency (U.S. EPA) regulation under the Toxic Substances Control Act (TSCA).

Laboratory wastes are transferred from various laboratories to the hazardous waste storage building by trained hazardous waste storage facility personnel. The only waste which may be stored in the hazardous waste storage building are wastes as identified in Table 2, Page 35 of Appendix 11 of the approved Permit Application. Hazardous wastes which are corrosive shall be stored in separate containment areas of the hazardous waste storage building.

B. WASTE IDENTIFICATION

1. The storage of all hazardous waste containers permitted for storage for greater than 90 days shall be performed in the approved storage area shown as the hazardous waste storage facility (Building WS-3) on Drawings 10 and 12 of the approved permit application.
2. The Permittee may only store the wastes identified in Table 2, page 35 of Appendix 11 of the approved permit application and summarized in Condition I.A. above in the container storage area. The applicable hazardous waste codes for those wastes are also listed in Attachment A to this permit.
3. The Permittee is prohibited from storing waste (hazardous or non-hazardous) in the permitted unit that is not identified in Condition B. 2. above.
4. Preservation techniques used for sample handling and shipping prior to analysis shall be consistent with the latest edition of SW-846.

C. CONDITION OF CONTAINERS -- If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in accordance with the approved permit application.

D. COMPATIBILITY OF WASTE WITH CONTAINERS -- The Permittee must use a container made of or lined with material which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

E. MANAGEMENT OF CONTAINERS -- The Permittee shall comply with the following management practices:

1. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
2. A container holding hazardous waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.
3. Aisle spacing for the storage of all hazardous waste containers must be maintained at a minimum distance of two feet.

F. INSPECTION

The Permittee shall conduct regular inspections of the Container Storage Facility, Secondary Containment Area, Security Equipment and Facility Periphery, Emergency Equipment and Personnel Protective Equipment in accordance with the inspection schedule shown in Exhibit F-1 of the approved permit application. Forms identified as Exhibits F-2, F-3, F-4 and F-5 of the approved permit application shall be used for documentation of the aforementioned inspections. Any deficiencies found during the inspections shall be corrected in a timely manner. Exhibits F-1, F-2, F-3, F-4 and F-5 have been included in Attachment B to this permit.

G. CONTAINMENT -- The Permittee shall construct, operate, and maintain the containment system according to the design plans and operating specifications contained in the Approved Permit Application.

H. CLOSURE -- At closure, at a minimum, all hazardous waste and hazardous waste residues and constituents must be removed from the containment system. Remaining wastes, liners, bases, soil and groundwater containing or contaminated with hazardous waste, hazardous waste residue or hazardous constituents must be decontaminated or removed. Closure of the container storage area shall be carried out in accordance with the closure plan in the approved permit application, as modified below:

1. The Permittee shall notify the Agency's Division of Land Pollution Control (DLPC) in writing of its intent to close the container storage area at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit a sampling and analysis plan to be used in demonstrating the storage area has been properly decontaminated. This plan must be approved by the Agency's DLPC in writing prior to being implemented. Agency review of this plan will be subject to the permit appeal provisions contained in Sections 39(a) and 40(a) of the Illinois Environmental Protection Act. The response from the Agency will approve and establish:
 - a. The sampling and decontamination plan;
 - b. What contaminants must be analyzed for;
 - c. Analytical requirements (SW-846 Methods should be utilized); and
 - d. The level at which decontamination or removal is considered complete.

2. All sweepings, washwater and rinsate generated during the closure of the unit shall be managed as a hazardous waste, unless it can be shown to be exempt under 35 Ill. Adm. Code Part 721.
3. The Permittee shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 for the container storage area if all of the hazardous wastes or contaminated material or media cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, this permit must be modified to require post-closure care in accordance with the applicable requirements of 35 Ill. Adm. Code, Subtitle G, Part 724, Subparts G and H.
4. Should post-closure care, as described above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit, within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan, the modification request shall be made no later than sixty (60) days after the determination is made.
5. Within sixty (60) days after closure of the container storage area is complete, the Permittee shall submit certification to the Agency that the unit has been closed in accordance with the approved closure plan.

The closure certification forms in Attachment C to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The qualified Professional Engineer (registered in the State of Illinois) should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the qualified Professional Engineer must be sufficient to determine the adequacy of each critical activity. The Agency's review of closure certification for partial or final closure will be conducted in accordance with 35 Ill. Adm. Code 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

- a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities.

- b. A description of the method of waste handling and transport.
 - c. Copies of the waste manifests.
 - d. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information.
 - e. A chronological summary of closure activities and the cost involved.
 - f. Tests performed, methods and results.
 - g. Color photographs of closure activities which document conditions before, during and after closure.
 - h. A scale drawing of all excavated or decontaminated areas and sample locations.
6. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 Ill. Adm. Code 722.134) only applies to containers and tanks.
7. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.
8. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Agency reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

9. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 Ill. Adm. Code 722.134, those units are subject to the closure requirements identified in 35 Ill. Adm. Code 722.134(a)(1).

I. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not locate containers which hold ignitable or reactive waste within 50 feet of the facility's property line.
2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste.

Ignitable or reactive wastes must be separated and protected from sources of ignition or reaction including but not limited to:

- a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.
 - b. While ignitable or reactive waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
 - c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.
3. Aisle spacing for the storage of all hazardous waste containers must be maintained at a minimum distance of two feet.

J. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container, unless the procedures specified in the approved permit application are followed.

Incompatible wastes or materials must not be placed in the same container unless precautions are taken to prevent reactions which:

- a. Generate extreme heat or pressure, fire or explosions, or violent reactions

- b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment
- c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions
- d. Damage the structural integrity of the device or facility
- e. Through other like means, threaten human health or the environment.

The basic methods for preventing such reactions are to:

- a. Treat one or both of the incompatible wastes/materials to render them compatible prior to placing them in the container
 - b. Physically separate the incompatible wastes/materials in the containers so that it is not possible for the incompatible wastes/materials to come in contact with each other.
- 2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
 - 3. The Permittee shall not store containers holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments unless separated from the other material and protected from them by means of a dike, berm, wall, or other devices.

K. SPECIAL REQUIREMENTS FOR IGNITABLE AND COMBUSTIBLE WASTES

The Permittee shall store containers of ignitable and combustible (NFPA definition) wastes in an area separate from the area where all other wastes are stored. This separation shall be in addition to the separation of incompatibles required by 35 Ill. Adm. Code 724.277.

L. CONTINGENCY PLAN - ADDITIONAL SPECIAL CONDITIONS

- 1. The Permittee shall implement the facility contingency plan contained in the approved permit application any time there is (1) a release of hazardous waste, or (2) a fire or explosion which involves hazardous waste or which occurs in areas where hazardous wastes are treated, stored or disposed.

2. Based on air modeling results contained in the approved permit application, the types and volumes of waste permitted for storage in Building WS-3 will not have an impact off-site if spills occur. Therefore, the local response entities are not required to be notified because of spills, unless it is found that the actual release may have an off-site impact. Then the Permittee shall contact the local emergency response entities as soon as possible after implementation of the contingency plan:
 - a. The entities which must be notified include:
 1. Warrenville Fire Department
 2. DuPage County Sheriff's Department
 3. Kane County Sheriff's Department
 4. Illinois Emergency Management Agency (IEMA)
 5. National Response Center
 6. Central DuPage Hospital
 7. Provena Mercy Center Hospital
 8. DLPC, FOS – Des Plaines Region (within 24 hours)
 - b. The information which must be initially relayed to each entity includes:
 1. The type of emergency (release, fire or explosion);
 2. The type of wastes involved in the emergency, and the approximate quantity involved;
 3. An initial assessment of the conditions at the site and whether outside help is needed to properly respond to the situation.
 - c. If the Permittee is able to properly respond to the emergency without any aid from the entities identified in Condition 2.a above, the Permittee shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.

3. The Permittee shall provide applicable local emergency entities with changes/modifications to the contingency plan and offer to meet and review the plan on an annual basis. Copies of the meeting notes and list of attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon verbal or written request.

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Section II: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. EFFECT OF PERMIT. The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 Ill. Adm. Code 702.181)
2. PERMIT ACTIONS. This permit may be modified, reissued or revoked for cause as specified in 35 Ill. Adm. Code 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. (35 Ill. Adm. Code 702.146)
3. SEVERABILITY. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 Ill. Adm. Code 700.107)
4. PERMIT CONDITION CONFLICT. In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 Ill. Adm. Code 702.160)
5. DUTY TO COMPLY. The Permittee shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 Ill. Adm. Code 702.141 and 703.242)
6. DUTY TO REAPPLY. If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 Ill. Adm. Code 702.142 and 703.125)
7. PERMIT EXPIRATION. This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete

application (see 35 Ill. Adm. Code 703.181-703.209) and through no fault of the Permittee the Illinois EPA has not issued a new permit as set forth in 35 Ill. Adm. Code 702.125.

8. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 Ill. Adm. Code 702.143)
9. DUTY TO MITIGATE. In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. (35 Ill. Adm. Code 702.144)
10. PROPER OPERATION AND MAINTENANCE. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 Ill. Adm. Code 702.145)
11. DUTY TO PROVIDE INFORMATION. The Permittee shall furnish to the Illinois EPA, within a reasonable time, any relevant information which the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Illinois EPA, upon request, copies of records required to be kept by this permit. (35 Ill. Adm. Code 702.148)
12. INSPECTION AND ENTRY. The Permittee shall allow an authorized representative of the Illinois EPA, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location. (35 Ill. Adm. Code 702.149)

13. MONITORING AND RECORDS. (35 Ill. Adm. Code 702.150)

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 Ill. Adm. Code 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.
- c. Records of monitoring information shall include:
 - i. The date(s), exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical technique(s) or method(s) used; and

- vi. The result(s) of such analyses. (35 Ill. Adm. Code 702.150)
- 14. REPORTING PLANNED CHANGES. The permittee shall give written notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. In general, proposed changes to the facility will need to be submitted to the Illinois EPA as permit modification request that complies with the requirements of 35 Ill. Adm. Code 703.280. (35 Ill. Adm. Codes 702.152(a))
- 15. CONSTRUCTION CERTIFICATION. For a new hazardous waste management facility, the permittee shall not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:
 - a. The permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
 - b.
 - 1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or
 - 2. If, within 15 days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste. (35 Ill. Adm. Code 703.247)
- 16. ANTICIPATED NONCOMPLIANCE. The Permittee shall give advanced written notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, regulations, or the Act. (35 Ill. Adm. Code 702.152(b))
- 17. TRANSFER OF PERMITS. This permit may not be transferred by the permittee to a new owner or operator unless the permit has been modified or reissued pursuant to 35 Ill. Adm. Code 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Illinois EPA. The new owner or operator shall submit a revised permit application no later than 90 days prior to the scheduled change. (35 Ill. Adm. Code 703.260)
- 18. MONITORING REPORTS. Monitoring results shall be reported at the intervals specified in the permit. (35 Ill. Adm. Code 702.152(d))

19. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 Ill. Adm. Code 702.162. (35 Ill. Adm. Code 702.152(e))
20. TWENTY-FOUR HOUR REPORTING.
 - a. The Permittee shall report to the Illinois EPA any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:
 - i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.
 - ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
 - b. The description of the occurrence and its cause shall include:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Name, address, and telephone number of the facility;
 - iii. Date, time, and type of incident;
 - iv. Name and quantity of material(s) involved;
 - v. The extent of injuries, if any;
 - vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
 - c. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not

been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five day written notice requirement in favor of a written report within fifteen days. (35 Ill. Adm. Code 702.152(f) and 703.245(b))

21. OTHER NONCOMPLIANCE. The Permittee shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 14, 15, and 16, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 20. (35 Ill. Adm. Code 702.152(g))
22. OTHER INFORMATION. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 Ill. Adm. Code 702.152(h))
23. REPORTING REQUIREMENTS. The following reports required by 35 Ill. Adm. Code 724 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):
 - a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Adm. Code 724.172(b))
 - b. Unmanifested waste report: The permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 Ill. Adm. Code 724.176)
 - c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Adm. Code 724.175)
24. SUBMITTAL OF REPORTS OR OTHER INFORMATION. All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

Illinois Environmental Protection Agency
Bureau of Land
Planning and Reporting Section - #24
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

25. SIGNATORY REQUIREMENT. All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 Ill. Adm. Code 702.126. (35 Ill. Adm. Code 702.151)
26. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 Ill. Adm. Code 702.103 and 35 Ill. Adm. Code 161.
27. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE. The Permittee shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:
 - a. Waste analysis plan as required by 35 Ill. Adm. Code 724.113(b) and this permit.
 - b. Personnel training documents and records as required by 35 Ill. Adm. Code 724.116(d) and this permit.
 - c. Contingency plan as required by 35 Ill. Adm. Code 724.153(a) and this permit.
 - d. Closure plan as required by 35 Ill. Adm. Code 724.212(a) and this permit.
 - e. Cost estimate for facility closure as required by 35 Ill. Adm. Code 724.242(d) and this permit.
 - f. Operating record as required by 35 Ill. Adm. Code 724.173 and this permit.
 - g. Inspection schedules as required by 35 Ill. Adm. Code 724.115(b) and this permit.
28. WASTE MINIMIZATION. The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 35 Ill. Adm. Code 724.173(b)(9).

GENERAL FACILITY STANDARDS

29. NOTICE OF WASTE FROM A FOREIGN SOURCE. The permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 Ill. Adm. Code 724.112(a))
30. NOTICE OF WASTE FROM OFF-SITE. The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 Ill. Adm. Code 724.112(b))
31. GENERAL WASTE ANALYSIS. The Permittee shall comply with the procedures described in the approved waste analysis plan. (35 Ill. Adm. Code 724.113)
32. SECURITY. The Permittee shall comply with the security provisions of 35 Ill. Adm. Code 724.114(b) and (c).
33. GENERAL INSPECTION REQUIREMENTS. The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Adm. Code 724.115(c). Records of inspections shall be kept as required by 35 Ill. Adm. Code 724.115(d).
34. PERSONNEL TRAINING. The Permittee shall conduct personnel training as required by 35 Ill. Adm. Code 724.116 and shall maintain training documents and records as required by 35 Ill. Adm. Code 724.116(d) and (e).
35. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee shall comply with the requirements of 35 Ill. Adm. Code 724.117.

PREPAREDNESS AND PREVENTION

36. DESIGN AND OPERATION OF FACILITY. The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 Ill. Adm. Code 724.131)
37. REQUIRED EQUIPMENT. The Permittee shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Adm. Code 724.132.

38. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee shall test and maintain the equipment specified in the contingency plan and this permit as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Adm. Code 724.133)
39. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee shall maintain access to the communications or alarm system as required by 35 Ill. Adm. Code 724.134.
40. REQUIRED AISLE SPACE. The Permittee shall maintain aisle space as required by 35 Ill. Adm. Code 724.135 and National Fire Protection Association (NFPA) requirements.
41. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Adm. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

CONTINGENCY PLAN

42. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 Ill. Adm. Code 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 Ill. Adm. Code 703.241). Within 15 days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 Ill. Adm. Code 724.156(j).
43. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Adm. Code 724.153.
44. AMENDMENTS TO PLAN. The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 35 Ill. Adm. Code 724.154.
45. EMERGENCY COORDINATOR. A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 Ill. Adm. Code 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

46. **MANIFEST SYSTEM.** The Permittee shall comply with the manifest requirements of 35 Ill. Adm. Code 724.171, 724.172 and 724.176.
47. **OPERATING RECORD.** The Permittee shall maintain a written operating record at the facility in accordance with 35 Ill. Adm. Code 724.173.
48. **ANNUAL REPORT.** The Permittee shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 Ill. Adm. Code 724.175.

CLOSURE

49. **PERFORMANCE STANDARD.** The Permittee shall close the facility as required by 35 Ill. Adm. Code 724.211 12 and in accordance with the approved closure plan.
50. **AMENDMENT TO CLOSURE PLAN.** The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 Ill. Adm. Code 724.212(c).
51. **NOTIFICATION OF CLOSURE.** The Permittee shall notify the Illinois EPA at least 60 days prior to the date it expects to begin closure. (35 Ill. Adm. Code 724.212(d))
52. **TIME ALLOWED FOR CLOSURE.** After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 Ill. Adm. Code 724.213)
53. **DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT.** When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 Ill. Adm. Code 724.214) plan.
54. **CERTIFICATION OF CLOSURE.** When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 Ill. Adm. Code 724.215 that the facility has been closed as specified by the approved closure plans.
55. **COST ESTIMATE FOR FACILITY CLOSURE.** The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.242, must be:

- a. Adjusted for inflation 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 724.243. However, if the owner/operator is using the financial test or corporate guarantee, it must be updated for inflation within 30 days after close of the firm's fiscal year, and before the submission of updated information to the Illinois EPA as specified in Section 724.243(f).
 - b. Revised no later than 30 days after the Illinois EPA has approved a request to modify the closure plan, if the change in the closure plan increases the cost of closure.
 - c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.242)
 - d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.
56. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee shall demonstrate compliance with 35 Ill. Adm. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Adm. Code 724.243.
- Financial assurance documents submitted to Illinois EPA should be directed to the following address:
- Illinois Environmental Protection Agency
Bureau of Land #24
Financial Assurance Program
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
57. LIABILITY REQUIREMENTS. The Permittee shall demonstrate continuous compliance with the requirements of 35 Ill. Adm. Code 724.247 and the documentation requirements of 35 Ill. Adm. Code 724.251.
58. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee shall comply with 35 Ill. Adm. Code 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

59. DISPOSAL PROHIBITION. Any waste identified in 35 Ill. Adm. Code Part 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Adm. Code Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.
60. DILUTION PROHIBITION. The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Adm. Code 728, Subpart D (35 Ill. Adm. Code 728.103).
61. WASTE ANALYSIS.
- a. The Permittee must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.
 - b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.
 - c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 Ill. Adm. Code 728.107 and 728.150(a)(1).
62. STORAGE RESTRICTIONS
- a. The Permittee shall not store hazardous wastes restricted from land disposal under 35 Ill. Adm. Code Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its

contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 Ill. Adm. Code 728.150.

- b. The Permittee must comply with the operating record requirements of 35 Ill. Adm. Code 724.173.

63. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 Ill. Adm. Code Part 728, Subpart C, or for which treatment standards have been established under 35 Ill. Adm. Code 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 59 through 62 above.

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SECTION III: CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Section 3004 of RCRA and 35 IAC 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) at its facility in Batavia, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.
2. The original RCRA permit was issued by Illinois EPA for this facility on September 30, 1991; Section III of this permit contained corrective action requirements. As of August, 2004, the Permittee has completed RFI activities for all the SWMUs of concern at the facility and has completed corrective measures for all but five of the SWMUs of concern. This section identifies the requirements which must still be carried out to complete corrective action at the five remaining SWMUs of concern.
3. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.
4. The requirements of 35 Ill. Adm. Code 742 must be met, when applicable, in establishing remediation objectives for corrective action.
5. Final actions by Illinois EPA on all corrective action-related submittals for this facility are subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

B. CORRECTIVE ACTION EFFORTS COMPLETED TO DATE

1. The Permittee has completed a substantial amount of corrective action efforts to date; a summary of these activities are presented in Attachment E.
2. Corrective action must still be completed at the following SWMUs:
 - a. Storage Area within the Railhead Storage Yard (SWMU 14);
 - b. The Village Machine Shop;

- c. The CUB Pipe/Clay Tile Field;
 - d. Building 1B2; and
 - e. The Meson Hill Landfill.
3. The Meson and Neutrino Area is no longer subject to the corrective action requirements of this permit, as it is not a solid waste management unit.

Subsection C through H below identify the corrective action efforts which must still be completed at these SWMUs.

C. REMAINING CORRECTIVE ACTION REQUIREMENTS AT SWMU 14 WITHIN THE RAILHEAD STORAGE YARD

- 1. An RCRA Facility Investigation was completed at SWMU 14 and, in a June 10, 1998 letter, Illinois EPA determined that, subject to certain conditions, no further corrective action was necessary at this unit. The conditions placed on this determination are re-iterated in this subsection and must continue to be met.
- 2. Low levels of lead are present in the shallow subsurface soils at SWMU 14. These levels will not pose a threat to human health or the environment provided the requirements of this sub-section are met.
- 3. The Permittee must restrict access to this area to only authorized DOE/Fermilab representatives.
- 4. Fermilab Security Services shall routinely observe the area for signs of unauthorized entry into the area. If access problems are observed, Fermilab and the Department of Energy must take steps necessary to correct this problem.
- 5. The Permittee must develop and implement a site safety plan to address possible worker exposure to the soils at SWMU 14 during any future construction/excavation activities at the unit.
- 6. The Permittee must manage any soil removed from SWMU 14 in the future as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.

7. The Permittee must establish an institutional control in accordance with Subsection H below to ensure that the requirements of Conditions III.C.3 thru III.C.6 above are met in the future.

D. REMAINING CORRECTIVE ACTION REQUIREMENTS AT THE VILLAGE MACHINE SHOP

1. A RCRA Facility Investigation completed at this unit found low levels of chlorinated solvents in the soils remaining at the two former hazardous waste container storage areas at the Village Machine Shop. Illinois EPA determined in a May 14, 2001 letter that, subject to certain conditions, no further corrective action was necessary for these units. The conditions which must be met are re-stated in this subsection.
2. The Permittee has constructed an engineered barrier over the two former hazardous waste container storage areas to restrict exposure to the remaining soils. Plans for and construction of this barrier were approved by Illinois EPA on April 24, 2002.
3. The Permitted must properly maintain the engineered barrier identified in Condition III.D.2 above in the future.
4. The Permittee will implement a site safety plan to address possible worker exposure to the soils beneath the engineered barriers at the Village Machine Shop during any future construction/excavation activities in these soils.
5. The Permittee must manage any soil removed from this beneath the engineered barriers identified in Condition III.D.2 in the future as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
6. The Permittee must establish an institutional control in accordance with Subsection I below to ensure that the requirements of Conditions III.D.2 through Condition III.D. 5 above are met in the future.

E. REMAINING CORRECTIVE ACTION REQUIREMENTS AT THE CUB PIPE/CLAY TILE FIELD (SWMU 12)

1. Fermilab has completed a substantial amount of investigative and remedial activities at this unit and continues to carry out a groundwater monitoring program.
2. In a June 15, 2001 letter, Illinois EPA determined that no further action was necessary for the soils at this unit.
3. The Illinois EPA approved a No Further Action (NFA) determination for soils at SWMU No. 12 in Condition 1 the June 5, 2001 Illinois EPA letter (Log No. B-131-CA-16). However, groundwater monitoring is required at this SWMU due to the presence of some inorganic constituents exceeding appropriate 35 Ill. Adm. Code 620 Groundwater Quality Standards (GQSs). Groundwater monitoring at this unit must be conducted in accordance with Conditions of the June 5, 2001 letter, the November 7, 2001 Illinois EPA letter (Log No. B-131-CA-20), Appendix 2 of the approved Permit Renewal Application, and any Illinois EPA approval of modifications to the corrective action plan.

F. REMAINING CORRECTIVE ACTION REQUIREMENTS AT BUILDING IB2

1. On April 25, 1994, Fermilab notified Illinois EPA of the presence of a SWMU at the location where Building IB2 was to be constructed. Additional information regarding this SWMU was submitted to Illinois EPA on June 10, 1994. In a July 22, 1994 letter, Illinois EPA indicated that no further action was necessary at this unit, provided certain conditions were met. The conditions placed on this determination are re-iterated in this subsection and must continue to be met as follows:
 - a. The Permittee must manage any soil removed from this area in the future as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
 - b. The Permittee will maintain the impermeable barrier constructed over the contaminated soil beneath the building.
 - c. The Permittee will implement a site safety plan to address worker exposure to the remaining soil in the area as part of any future construction or excavation effort at this unit.

2. An institutional control must be established in accordance with Subsection H below to ensure that the requirements of Conditions III.F.2 thru III.F.4 above are met in the future.

G. REMAINING REQUIREMENTS FOR THE MESON HILL LANDFILL (SWMU 13)

A closure and post-closure plan for the Meson Hill Landfill was approved by Illinois EPA on December 12, 1997. Certification that Fermilab closed this landfill in accordance with the approved plan has been accepted by Illinois EPA, and Fermilab must now provide this landfill with post-closure care. The post-closure period began on June 15, 1998 and must be provided for a minimum of fifteen years, also established procedures for conducting post-closure care of the Meson Hill Landfill, including groundwater monitoring.

Post-closure care of the Meson Hill Landfill must be carried out in accordance with the following conditions:

1. Except as modified herein, post-closure care of the Meson Hill Landfill must be carried out in accordance with the plan received by Illinois EPA on April 15, 1997 and approved by Illinois EPA on December 12, 1997 (Log No. B-131-CA-6).
2. A gate must be maintained at the entrance of the landfill to restrict access to it during the post-closure period.
3. Access to the landfill must be restricted such that only authorized DOE/Fermilab representatives are allowed to enter the landfill area. The gate at the entrance to the landfill and remain locked unless it is used by an authorized representative of DOE/Fermilab to gain access to the landfill. In addition, as proposed, Fermilab shall include the landfill as a formal checkpoint for the Fermilab Security Services on each of three daily security shifts. Furthermore, Fermilab Security Services shall routinely observe the landfill area for signs of activity on any passbys. If access problems are observed, Fermilab and the Department of Energy must address them by taking appropriate corrective actions.
4. Inspections of the closed landfill shall be conducted quarterly. During the establishment of revegetation, inspections should occur anytime after the facility receives more than one inch of rainfall over a 24-hour period. After vegetation is re-established, the need for inspections after the facility receives more than one inch of rainfall a 24-hour period may be reevaluated; and the inspection schedule

may be revised based upon existing soil conditions and experience with rainfall effects. Records of field investigations, inspections, sampling and corrective action taken are to be maintained at the site and made available to Illinois EPA personnel. During the post-closure care period, these records are to be maintained at the office of the site operator.

5. During the post-closure care period, corrective action shall be taken if problems, including but not limited to the following are observed during the required post-closure inspection:

- erosion
- ponding
- cracks in final cover greater than one inch wide
- gas problems
- odor problems
- dead or stressed vegetation
- vegetation with taproots growing in areas not so designed
- vector problems
- leachate popouts or seeps

6. During the post-closure period, for areas in excess of one hundred (100) square feet that have dead or stressed vegetation due to landfill gas migration, a gas vent shall be installed to minimize the effects of that landfill gas migration on the final cap system.
7. The entire landfill must be maintained during the post-closure care period to prevent the growth of trees or other large deep rooted vegetation which may adversely impact the final cover system. This will require that the landfill be mowed or otherwise maintained on an annual basis.
8. When the post-closure care period has been completed, the operator shall notify the Illinois EPA utilizing the Illinois EPA's "Affidavit for Certification of Completion of Post-Closure Care for Non-Hazardous Waste Facilities."
9. The Permittee must establish an institutional control in accordance with Subsection I below which indicates that (1) the area where the Meson Hill Landfill is located has been used for the disposal of waste; and (2) post-closure use of the area must not disturb the (a) integrity of the final cover the landfill, its liner, or any other components of the containment system; or (b) the function of the landfill's monitoring system.

10. Long-term post-closure care for groundwater is currently required for SWMU No. 13. This SWMU was certified as closed as a landfill on June 15, 1998 in accordance with the June 23, 2000 Illinois EPA letter (Log No. B-131-CA-10). Fifteen years post-closure care is required for groundwater at the landfill in accordance with Condition 4 of that letter. Post-closure care for groundwater at SWMU No. 13 must be conducted in accordance with the conditions of the January 31, 2003 IEPA letter (Log No. B-131-CA-23), Appendix 2 of the approved Permit Renewal Application, and any Illinois EPA approval of modifications to the post-closure care plan for SWMU No. 13.

H. REQUIREMENTS FOR AN INSTITUTIONAL CONTROL

1. An institutional control meeting the requirements of 35 Ill. Adm. Code 742 must eventually be established to place certain restrictions on the following SWMUs: (1) the Railhead Storage Yard; (2) the Village Machine Shop; (3) Building IB2; and (4) the Meson Hill Landfill.
 - a. The restrictions for the Railhead Storage Yard are set forth in Conditions C.3 thru C.6 above;
 - b. The restrictions for the Village Machine Shop are set forth in Conditions III.D.3 thru III.D.5 above;
 - c. The restrictions for Building IB2 are set forth in Conditions III.F.2.a thru III.F.4 above.
 - d. The restrictions for the Meson Hill Landfill are set forth in Condition III.G.9 above.

I. REQUIREMENTS FOR ADDRESSING NEWLY- IDENTIFIED SWMU(s)

1. The Permittee shall notify the Illinois EPA's DLPC in writing of any newly-identified SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:
 - a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;

- b. The type and past and present function of the unit;
 - c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);
 - d. The period during which the unit was operated;
 - e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and
 - f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.
- 2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU, Illinois EPA may request in writing that the Permittee prepare a plan and schedule for assessing the unit. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the proposed sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment.
 - 3. Within 60 calendar days after receipt of the Illinois EPA's DLPC request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan.
 - 4. After the Permittee submits the SWMU Assessment Plan, the Illinois EPA's DLPC shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Illinois EPA's DLPC shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.
 - 5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA's DLPC in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.

6. The Permittee must implement additional investigation efforts and a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time Illinois EPA notifies the Permittee of the need for such a program.
7. The results of all corrective action efforts required by this subsection must meet the requirements of 35 Ill. Adm. Code 724.201 and 742.
8. Illinois EPA action on all submittals made under this subsection shall be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

J. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition III.I.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection I above. The results of all corrective action efforts required by this condition must meet the requirements of 35 Ill. Adm. Code 724.201 and 742.

K. INTERIM MEASURES/STABILIZATION

1. At any time during the corrective action program at this facility, the Permittee may initiate additional interim measures for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It shall not be necessary to conduct all phases of a RCRA Facility Investigation (RFI) investigation prior to implementing an interim measure if the Illinois EPA's DLPC and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal Corrective Measures Study (CMS).
 - a. Prior to implementing any interim measures beyond those specified above, the Permittee must submit detailed information regarding the proposed

interim measure to the Illinois EPA's DLPC for approval. This information shall include, at a minimum:

- (1) Objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
 - (2) Design, construction, and maintenance requirements;
 - (3) Schedules for design and construction; and
 - (4) Schedules for progress reports.
- b. If the Illinois EPA's DLPC determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA's DLPC will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal, including the invocation of dispute resolution, shall not affect the schedule for implementation of the RFI or of any other portion of the permit.
- c. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, the Permittee will be notified by way of a permit modification.

SECTION IV: REPORTING AND NOTIFICATION REQUIREMENTS

The reporting and notification requirements of each section of the RCRA Permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this Permit.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
Section I:	CONTAINER STORAGE	
H.1.	Notify Agency of intent to close container storage area	At least 45 days prior to commencement of closure.
H.1.	Submit decontamination and/or soil sampling and analysis plan for review	At least 45 days prior to commencement of closure.
H.4.	Submit application for modification of permit and closure and post-closure care plan	No later than 60 days after determination that container storage area cannot be clean closed.
H.5.	Submit certification for closure of container storage area	No later than 60 days after closure of container storage area is complete.
Section II:	STANDARD CONDITIONS	
6	Complete application for new permit.	At least 180 days prior to permit expiration.
11	Information requested by Agency and copies of records required to be kept by this permit.	Reasonable time.
14	Notify Agency of planned physical alterations or additions.	At least 15 days prior to planned change.

16	Notify Agency of changes which may result in permit noncompliance.	
17	Application for permit modification indicating permit is to be transferred.	
19	Submission of any information required in a compliance schedule.	Within 14 days after each schedule date.
20	Report to Agency any non-compliance which may endanger health or environment.	
	telephone	Within 24 hours after discovery.
	in writing	Within 5 days after discovery.
21	Report all other instances of noncompliance.	March 1 of each year along with Annual Report.
29	Notify Agency in writing of expected receipt of hazardous waste from foreign source.	At least 4 weeks prior to receipt of waste.
42	Implementation of Contingency Plan.	
	Notify appropriate state and local agencies with designated response roles.	As needed.
	Notify appropriate local officials.	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable.
	Notify the Agency (217/782-3637) or Illinois EMA (217/782-7860) if emergency coordinator determines there has been a release, fire or explosion which could threaten human health or the environment, outside the facility.	Immediately after determination made.

	Notify Agency and appropriate state and local authorities, in writing that facility is in compliance with 35 Ill. Adm. Code 724.156(h).	Prior to resuming operation in affected areas.
	Report to Agency details regarding incident which required implementation of contingency plan.	Within 15 days after event.
48	Submit annual report required by 35 Ill. Adm. Code 724.175.	March 1 of each year.
50	Application for Permit modification amending closure plan.	
51	Notify Agency that expecting to close.	At least 45 days prior to beginning closure.
Section III: CORRECTIVE ACTION		
G.8	Documentation that post-closure care for the Meson Hill Landfill has been completed.	After completion of post-closure care period.
I.1	Discovery of newly identified SWMUs.	30 days after discovery.
I.3	SWMU Assessment Plan.	Within 60 calendar days of receipt of said plan being requested by the Illinois EPA.
I.5	Results of the approved SWMU Assessment Plan.	In accordance with the schedule in the approved SWMU Assessment Plan.
J.	Report on releases from SWMUs identified in RFA.	Within 30 days after discovery of release.
K.1.a	Report documenting proposed interim measures report for preventing continuing releases.	Prior to implementing interim measures.

SECTION V: SPECIAL PERMIT CONDITIONS

A. REQUIRED FORMS

1. The permittee shall provide a completed Illinois EPA permit application form LPC-PA23 with all additional information, permit modifications, and permit applications that are submitted to the Illinois EPA Bureau of Land.
2. The permittee is required to complete and provide the following 39i Certification forms to the Illinois EPA Bureau of Land:
 - a. A 39i (legal entity) certification form must be filled out for the legal entity (i.e. Company) that appears on the permit application being submitted, and
 - b. A 39i (individual) form must be filled out for the individual that signs the 39i (legal entity) certification form, and
 - c. A 39i (individual) form must be filled out for each individual who signs the permit application.

Note: If the applicant wants additional staff to be able to send in future modifications, certifications, etc. those individuals should also send in an individual 39i certification form.

B. COMPLIANCE SCHEDULE

1. The permittee shall submit the necessary 39i certification form(s) and supporting documentation within 30 days of any of the following events:
 - a. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has violated federal, State, or local laws, regulations, standards, or ordinances in the operation of waste management facilities or sites; or
 - b. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has been convicted in this or another State of any crime which is a felony under the laws of this State, or conviction of a felony in a federal court; or

- c. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has committed an act of gross carelessness or incompetence in handling, storing, processing, transporting, or disposing of waste.
- d. A new person is associated with the owner or operator who can sign the permit application or who has control over operating decisions regarding the facility, such as a corporate officer or a delegated employee.

The 39i certification must describe the violation(s), convictions, carelessness, or incompetence as outlined in a, b, or c above and must include the date that a new person as described in d above began employment with the applicant.

The 39i certification form and supporting documentation shall be submitted to the address specified below:

Illinois Environmental Protection Agency
Bureau of Land #33 – 39i Certification
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

[The 39i certification forms will be treated as confidential by the Agency. The applicant may also request the information on the 39i certification form be maintained confidential in accordance with 2 Ill. Adm. Code 1828.]

C. STANDARD CONDITIONS

- 1. This Condition supercedes Standard Conditions II.55 through II.58. “Standard Conditions II.55 through II.58 are not applicable to this Permit.”

ATTACHMENT A

WASTE LISTS AND HAZARDOUS WASTE
IDENTIFICATION NUMBERS

IL6890030046

LPC #0890105010

Part B Log #131R

ATTACHMENT A

<u>EPA HAZARDOUS WASTE NO.</u>	<u>DESCRIPTION OF HAZARDOUS WASTE</u>
--------------------------------	---------------------------------------

D002	Corrosive (pH less than 2.0 or greater than 12.5)
------	---

<u>EPA HAZARDOUS WASTE NO.</u>	<u>HAZARDOUS WASTE BASED ON TOXICITY CHARACTERISTICS</u>
--------------------------------	--

D008	Lead
D009	Mercury

<u>WASTE</u>	<u>DESCRIPTION OF WASTE</u>
--------------	-----------------------------

Mixed waste	Wastes that contain both radioactive waste subject to the Atomic Energy Act and hazardous waste identified by one or more of the EPA hazardous waste codes listed above.
-------------	--

PCB waste	Waste that contains polychlorinated biphenyls (PCB's)
-----------	---

SFN:JR:bjh\0890105010-RCRA-B131RM5-Approval.doc.

ATTACHMENT B

INSPECTION SCHEDULE FOR BUILDING WS-3

IL 6890030046

LPC #0890105010

Part B Log #131R

EXHIBIT F-1

Inspection Schedule For Site 55 Hazardous Waste Storage Facility

Item/Area	Type of Problem	Inspection Frequency
Container Storage Facility	Open containers	Weekly
	Corrosion	
	Leaks	
	Labeling	
	Quantity by waste type	
	Improper segregation	
Secondary Containment Area	Evidence of spills or leaks	Weekly or Daily when facility is occupied
	Liquid in containment area	
	Cracks or other deterioration of containment coatings	
	Leaks or spills in loading or unloading areas	
Security Equipment and Facility Periphery	Inoperable equipment	Weekly
	Missing or damaged signs	
	Damage to fence or gate	
Emergency Equipment	Missing items	Monthly
	Damaged Items	
	Improper location	
Personnel Protective Equipment	Missing items	Monthly
	Damaged Items	
	Improper location	

Hazardous Waste Storage Facility

Weekly Container Storage Inspection Report Form For Building WS-3

Date of Inspection: _____ Name of Inspector: _____

Time of Inspection: _____ Inspector Signature: _____

Condition Key: ✓= OK N/A= Not Applicable X= Tested (see Equipment Test Parameters on page 2)

Item	Condition ✓, N/A or X	Problem Describe the problem or refer to a number in the comment section on page 2	Date Corrective Action Completed
Miscellaneous Containment Area (Palletized Drums)			
Containers closed			
Container labels complete and legible			
Containers checked for compatibility, corrosion or physical damage			
Pallet condition			
Aisle space (4 feet between rows)			
Acid Containment Areas			
Containers closed			
Container labels complete and legible			
Containers checked for compatibility, corrosion or physical damage			
Pallet condition			
Mixed Waste Storage Cabinet			
Integrity of walls and shelves			
Doors operable			
Containers closed			
Container labels complete and legible			
Containers checked for compatibility, corrosion or physical damage			
Mercury Waste Storage Cabinet			
Integrity of walls and shelves			
Doors operable			
Containers closed			
Container labels complete and legible			
Containers checked for compatibility, corrosion or physical damage			

Item	Condition ✓, N/A or X	Problem Describe the problem or refer to a number in the comment section below	Date Corrective Action Completed
Touch Tone Phone			
(X) Operable			
24-hour emergency phone number (3131) posted			
Waste Inventory			
Posted and Updated			
Emergency Shower and Eye Wash			
(X) Drench shower			
(X) Eye wash fountain			

Comment # Comment

Equipment Test Perimeters:

Tests performed as part of this inspection:

Touch Tone Phone: (Operable) Lift receiver and listen for dial tone.

Emergency drench shower and eye wash fountain:

1. Use a bucket to run at least one gallon of water through the drench shower.
2. Connect the black drainage hose to the fitting on the eye wash fountain and run hose outside.
3. Allow eyewash to run for about 20 minutes to clear the water lines of possible sediment and contamination.
4. Close the water valve located just before the water filters and continue to run the eyewash until the water tank is empty.
5. Open water supply valve, allowing water tank to refill.
6. Check water pressure gauge to assure water pressure reaches a minimum of 30 PSI. or greater.

Hazardous Waste Storage Facility

Daily Secondary Containment Inspection Report Form For Building WS-3
When Facility Is Occupied

Date of Inspection: _____

Name of Inspector: _____

Time of Inspection: _____

Inspector Signature: _____

Condition Key: ✓= OK N/A= Not Applicable

Item	Condition ✓, or N/A	Problem Describe the problem or refer to a number in the comment section below	Date Corrective Action Completed
Containment Curbs- check for cracks and signs of deterioration			
Containment Floors- check for cracks and signs of deterioration			
Ramp- check for cracks and signs of deterioration			
Floor Sealant- check for peeling, abrasions or other damage			
Acid Containments- check for leaks and spills			
Miscellaneous Hazardous Waste Containment- check for leaks and spills			
Mixed Waste Cabinet- check for leaks and spills			
Mercury Waste Cabinet- check for leaks and spills			
Loading/Unloading Areas- check for leaks and spills			

Comment # Comment

Hazardous Waste Storage Facility

Weekly Security Equipment And Periphery Inspection Report Form

Date of Inspection: _____ Name of Inspector: _____

Time of Inspection: _____ Inspector Signature: _____

Condition Key: ✓= OK N/A= Not Applicable

Item	Condition ✓, or N/A	Problem Describe the problem or refer to a number on the comment section below	Date Corrective Action Completed
Building WS-3 door locks operable:			
4- personnel doors			
1- roll up door			
Vehicle gate operable and in good condition			
Emergency evacuation gate operable			
Gate areas clear of obstructions			
Periphery fence in good condition			
Warning signs in place and legible			
Access roadway from Eola Road trafficable			
Paved approach and Hardstand area in good condition			

Comment #	Comment

Hazardous Waste Storage Facility

Monthly Inspection Report Form For Building WS-3 Emergency Response Equipment

Date of Inspection: _____ Name of Inspector: _____

Time of Inspection: _____ Inspector Signature: _____

Condition Key: ✓ = OK N/A = Not Applicable I = Inventoried and Resealed

Item	Qty.	Condition ✓, I, or N/A	Problem Describe problem or refer to number in the comments section on page 4.	Date Corrective Action Completed
Emergency Response Cabinet #1				
Corn fiber broom	1			
Floor sweeping brush	1			
Dustpan	1			
Hand brush	1			
Round point closed back shovel 27" handle	1			
Round point closed back shovel 47" handle	1			
Square point closed back shovel 27" handle	1			
Square point closed back shovel 47" handle	1			
Non sparking drum plug wrench	1			
Drum upender	1			
Drum grabber	1			
Lifting Chain	1			
Emergency Response Cabinet #2				
125 ml, poly bottle, w/screw on lid	6			
250 ml, poly bottle, w/screw on lid	6			
1000 ml, poly bottle, w/screw on lid	6			
2000 ml, poly bottle, w/screw on lid	6			
5 gallon, poly, open head pail	2			

Item	Qty.	Condition ✓, I, or N/A	Problem Describe problem or refer to number in the comments section on page 4.	Date Corrective Action Completed
Emergency Response Cabinet #2 continued				
5 gallon, carboy, UN1H1/Y1.8/100/year/country/M-2030 closed head, bung type	2			
3M Powersorb Pads (Absorbent Material)	50			
<u>Spill Kit- Acids</u>	(1) Spill Kit Total			
(1) Container of absorbent (2 lbs of mineral absorbent)				
(2) Containers of neutralizer (2 lbs each of sodium carbonate)				
(1) Pair of safety goggles				
(1) Pair of gloves				
(1) Scoop				
(1) Brush				
(1) Waste bag				
<u>Spill Kit- Bases</u>	(1) Spill Kit Total			
(1) Container of absorbent (2 lbs of mineral absorbent)				
(1) Container of neutralizer (1 lb. of citric acid powder)				
(1) Pair of safety goggles				
(1) Pair of gloves				
(1) Scoop				
(1) Brush				
(1) Waste bag				
<u>Spill Kit- Hydrofluoric Acid</u>	(1) Spill Kit Total			
(2) Containers of converter (2 lbs each of magnesium sulfate)				
(1) Container of neutralizer (2 lbs of sodium carbonate)				
(1) Container of absorbent (2 lbs of mineral absorbent)				
(1) Pair of safety goggles				
(1) Pair of gloves				
(1) Scoop				
(1) Brush				
(1) Waste bag				

Item	Qty.	Condition ✓, I, or N/A	Problem Describe problem or refer to number in the comments section on page 4.	Date Corrective Action Completed
Emergency Response Cabinet #2 continued				
<u>Spill Kit- Mercury</u>	(1) Spill Kit Total			
(1) Hand-operated mercury vacuum				
(1) Mercury absorbent powder (amalgam 454 grams)				
(8) Mercury sponges				
(1) Recovery bags				
(1) Pair of safety glasses				
(1) Pair of gloves				
(1) Scoop				
(1) Set of instructions				
<u>First Aid Kit, General Use</u>	(1) Spill Kit Total			
(32) Band-Aid Brand sheer bandages, .75" x 3"				
(20) Band-Aid Brand flexible fabric bandages 1" x 3"				
(4) Johnson & Johnson Non-Stick Pads, small				
(10) Johnson & Johnson Non-Stick Pads, medium				
(2) Kling Sof-Gauze Bandages, 2"				
(2) Johnson & Johnson Oval Eye Pads				
(1) Johnson & Johnson Triangular Bandage				
(1) Johnson & Johnson Hypo-Allergenic First Aid Tape, .5" x 180" in dispenser				
(1) Johnson & Johnson Elastic Bandage 2"				
(10) Johnson & Johnson Antiseptic Wipes				
(1) Johnson & Johnson First Aid Cream, 8 oz. tube				
(1) Johnson & Johnson Instant Cold Pack, 4.5" x 6"				
(8) Tylenol Extra-Strength Caplets				
(1) Scissors				
(1) Tweezers				
(1) First Aid Guide				
(1) Contents card				
(2) Disposable gloves				

Item	Qty.	Condition ✓, I, or N/A	Problem Describe problem or refer to number in the comments section below.	Date Corrective Action Completed
Emergency Response Cabinet #3				
Large Saranex 23-P coated Tyvek or CPF 2 with hood and shoe covers	10			
Extra large Saranex 23-P coated Tyvek or CPF 2 with hood and shoe covers	10			
Butyl rubber gloves size medium	4			
Nitrile rubber gloves size medium	4			
Viton gloves size medium	4			
Canvas shoe covers	4			
3M 7800S Easi-Air, full face piece, respirator assembly	2			
Acid gas respirator cartridges	2			
Ammonia/Methylamine respirator cartridges	2			
High efficiency dust/mist respirator cartridges	2			
Organic vapor respirator cartridges	2			
Equipment Room				
Coarse vermiculite 18 lb. bag	2			
Safe Step or Magic Sorb Absorbent 10 gallon poly buckets	4			
55 gallon, UN1A1/X1.5/250 closed head, bung type	2			
55 gallon, UN1H1/Y1.9/150/year/country/M5174 poly, closed head, bung type	2			
55 gallon, UN1A2/X/400KG/S open head with locking ring	2			
95 gallon, UN1H2/Y318/S overpack, w/screw on lid	1			

Comment # Comment

Hazardous Waste Storage Facility
Monthly Inspection Report Form For Building WS-3

Date of Inspection: _____ Name of Inspector: _____

Time of Inspection: _____ Inspector Signature: _____

Condition Key: ✓= OK N/A= Not Applicable X= Tested (see Equipment Test Parameters on page 2)

Item	Qty.	Condition ✓, N/A or X	Problem Describe the problem or refer to a number in the comment section on page 2	Date Corrective Action Completed
Neutralizing Agents				
5 gallon, steel open head pail of Neutracit-2	1			
5 gallon, steel open head pail of Sodium Carbonate	1			
Fire Extinguishers				
15 lb. Kiddie CO ₂ extinguisher	1			
17 lb. Ansul dry chemical extinguisher	1			
Emergency Lights				
(X) Dual incandescent head lamps	3			
Emergency Eyewash				
Replace water filters (3 filters with 2 cartridges each)	6			
Evacuation Horn System				
(X) Switches at each personnel exit door	4			
Drum pumps				
(X) Corrosive liquid (<i>non explosion proof</i>)	2			
(X) Flammable liquid (<i>explosion proof</i>)	2			
(X) Non-flammable solvent (<i>non explosion proof</i>)	2			
(X) Non-hazardous liquid (<i>non explosion proof</i>)	2			
(X) Non-hazardous liquid (loaner) (<i>non explosion proof</i>)	1			



Comment #	Comment

Equipment Test Perimeters:

Tests performed as part of this inspection:

- Emergency Lights:** (monthly) Deactivate units for at least 30 seconds, light must remain visible for duration of test. ☹☹
(annually in June) Deactivate units for at least 90 minutes, light must remain visible for duration of test. ☹☹
- Emergency Horn:** (monthly) Activate test switches at each location and ensure evacuation horn is audible.
- Drum Pumps:** (biannually in March and September) Pump a minimum of 5 gallons of water through each pump.

- ☹ Fire Extinguishers are inspected monthly by Fire Dept.
- ☹☹ See reference- Fermilab ES&H Manual 6011-1.

ATTACHMENT C
CLOSURE CERTIFICATION FORM

IL 6890030046

LPC #0890105010

Part B Log #131R

ATTACHMENT C

This statement is to be completed by both the responsible officer and by the qualified Professional Engineer registered in the State of Illinois upon completion of closure. Submit one copy of the certification with original signatures and three (3) additional copies.

Closure Certification Statement

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

USEPA ID Number

Facility Name

Signature of Owner/Operator

Date

Name and Title

Signature of Qualified

Date

Name of Qualified P.E. and Illinois
Registration Number

Mailing Address of P.E.:

Registered P.E.'s Seal:

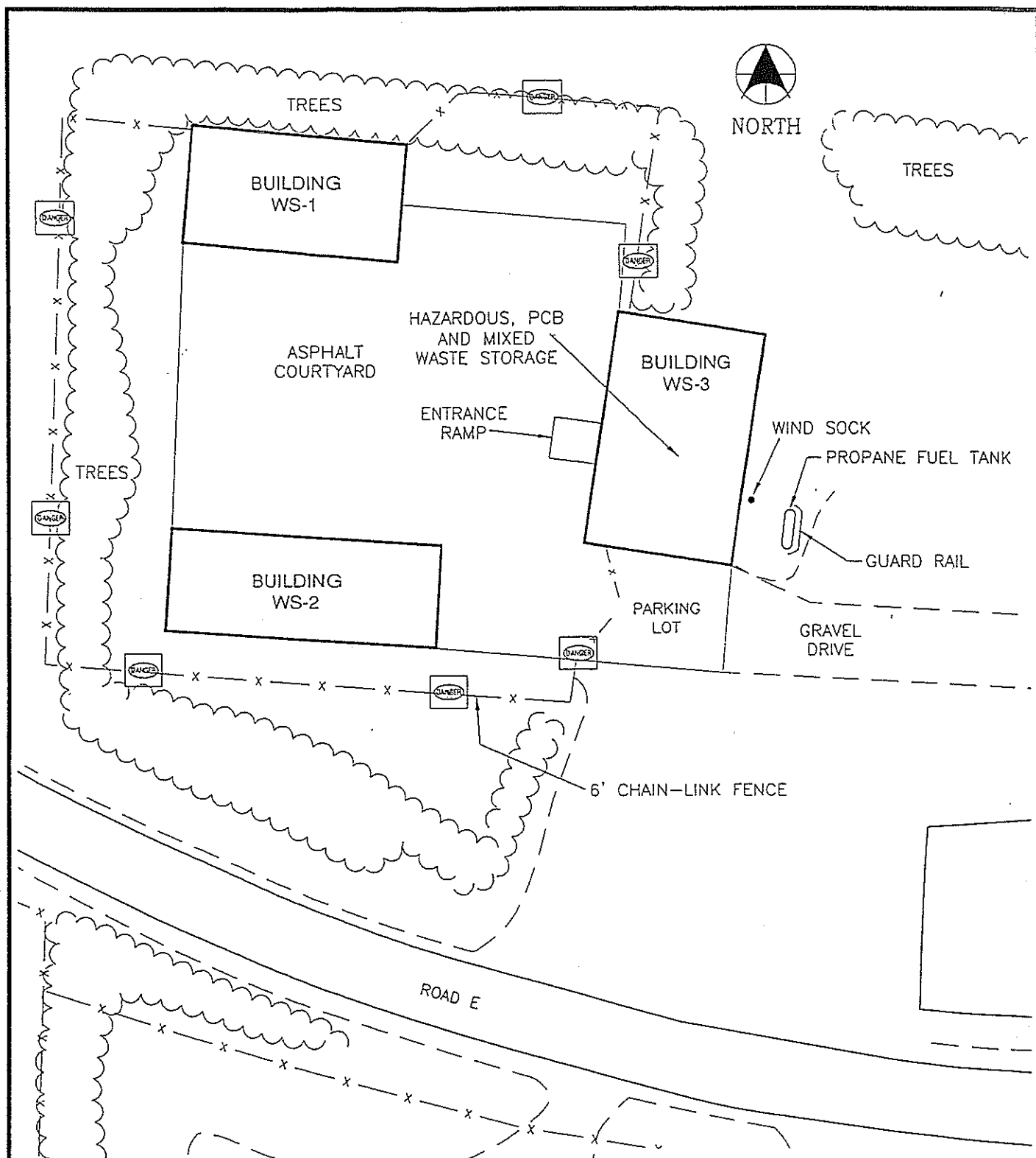
ATTACHMENT D

SITE PLAN

IL 6890030046

LPC #0890105010

Part B Log #131R



LEGEND:



= WARNING HAZARD SIGN

NOTE:

BUILDINGS WS-1 AND WS-2 ARE USED FOR NON-HAZARDOUS WASTE STORAGE AND TEMPORARY (<90-DAY) HAZARDOUS WASTE STORAGE

0 20 40 80

SCALE IN FEET

FERMILAB
KIRK ROAD & PINE STREET
BATAVIA, ILLINOIS

DRAWING 10
SITE 55 AREA DETAIL MAP

DATE:
OCTOBER 31, 2000

JOB NO.:
30822-328-007

DRAWN BY: MAR
CHK'D BY: SR

SCALE:
1"=40'

URS

1701 GOLF ROAD, SUITE 1000
ROLLING MEADOWS, ILLINOIS 60005-4227
PHONE: 847.228.0707
FAX: 847.228.1115

ASPHALT
COURTYARD

MERCURY WASTE
CABINET

ACID STORAGE
CONTAINMENT

ENTRANCE
RAMP

6" by 6"
CONCRETE
CURBING

OFFICE

EMERGENCY
RESPONSE
EQUIPMENT

EQUIPMENT STORAGE

WASTE LOADING/UNLOADING
AND STAGING AREA

HAZARDOUS WASTE
CONTAINMENT AREA

MIXED WASTE
CABINET

NORTH

ACID STORAGE
CONTAINMENT

WIND SOCK

PROPANE
FUEL TANK












DIATOMACEOUS
EARTH

OVERPACK AND
55-GAL. DRUMS

GUARD
RAIL

PARKING
LOT

LEGEND:

-  = EVACUATION HORN SWITCH
-  = EVACUATION HORN
-  = DRUM PUMPS
-  = OIL DRUM
-  = EMERGENCY LIGHTS
-  = FIRST AID KIT
-  = FIRE EXTINGUISHERS
-  = EMERGENCY EYE WASH
-  = EMERGENCY SHOWER
-  = TELEPHONE
-  = MAIN DOOR

0 5 10 20
SCALE IN FEET

FERMILAB
KIRK ROAD & PINE STREET
BATAVIA, ILLINOIS

DRAWING 12
BUILDING WS-3 HWSF
DETAIL MAP

DATE:
OCTOBER 31, 2000
JOB NO.:
30822-328-007
DRAWN BY: MAR
CHK'D BY: SB
SCALE:
1"=10'

URS

1701 GOLF ROAD, SUITE 1000
ROLLING MEADOWS, ILLINOIS 60008-4227
PHONE: 847.228.0707
FAX: 847.228.1115

ATTACHMENT E
CHRONOLOGICAL SUMMARY OF RCRA
CORRECTIVE ACTION ACTIVITIES

IL 6890030046

LPC #0890105010

Part B Log #131R

**Chronological Summary of RCRA Corrective
Action Activities at Fermilab
June 2004**

This document summarizes the corrective action efforts completed for 20 solid waste management units (SWMUs) at Fermilab (Illinois EPA ID No. 0890105010) in accordance with its RCRA permit (Log No. B-131 and associated modifications). Specifically, this document presents a chronological summary on these efforts, based on Illinois EPA's approval letters. A list of each of the 20 SWMUs of concern and the current status of corrective action at each SWMU is attached to this document. *Note: NFA = No Further Action*

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
September 23, 1991	B-131	Issued a RCRA permit for storing hazardous waste for time period greater than 90 days in a container storage area. Section III of permit required facility to conduct corrective action, as necessary, on SWMUs 1-15 as identified in the attached table.
November 23, 1993	B-131	Approved RFI Phase I workplan for SWMU 1 through 15, subject to certain conditions and modifications.
May 11, 1994		Identified closure and post-closure care requirements for the Meson Hill Landfill (SWMU 13).
May 18, 1994	B-131	Approved: (1) extension request to complete RFI activities; and (2) notification of a newly discovered SWMU (SWMU 20; IB2 addition).
June 23, 1994	B-131	Approved locations of monitoring wells around the Meson Hill Landfill (SWMU 13), subject to certain conditions and modifications.
July 22, 1994	B-131	Approved a request to proceed on construction of the IB2 addition (SWMU 20) without remediation of soil in the foot print area, provided certain exposure restrictions were met.
August 2, 1994	B-131	Reiterated that previous letter constitutes final action for IB2 addition; indicates no further action necessary at IB2 addition.

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
May 16, 1995	B-131	<p>Approved RFI Phase I report for SWMUs 1-15. No Further Action (NFA) required for SWMUs 1-4; 6-11. Required RFI Phase II workplan for SWMUs 5 and 12. Required submittal of a closure/post-closure plan for the Meson Hill Landfill (SWMU 13). Required workplan for further investigation at SWMU 14. Required submittal of additional information regarding the Meson and Neutrino Activated Areas (SWMU 15).</p> <p>Also, approved workplan for 4 newly identified SWMUs: Site 38 Corral, Anderson Barn, Printed Circuit Laboratory, Oxidation Pond (SWMUs 16-19).</p>
June 13, 1995	B-131-CA-2	Approved plan entitled "Assessment Plan for Railhead Storage Yard" (SWMU 14).
September 7, 1995	B-131-CA-1	Approved plan for an interim action at CUB Pipe and Tile Field (SWMU 12). Removal/excavation of perforated steel pipe (old field) and soil at SWMU 12.
November 22, 1996	B-131-CA-1	Approved supplemental RFI Phase I Assessment Report for SWMUs 16, 17, 18 and 19; NFA needed for these units.
November 22, 1996	B-131-CA-4	Approved assessment report for Railhead Storage Yard (SWMU 14) and recommendation for Phase II RFI.
December 10, 1996	B-131-CA-3	Approved interim measures report for SWMU 12 and Phase II RFI for SWMUs 5 and 12.
December 12, 1997	B-131-CA-6	Approved closure/post-closure plan for Meson Hill Landfill (SWMU 13).
April 14, 1998	B-131-CA-5	Approved additional investigative efforts for SWMU 15; required continued monitoring and leachate management as part of long-term corrective action at unit.

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
June 10, 1998	B-131-CA-7 B-131-CA-8	Response to 4 submittals regarding SWMUs 5, 12, 14. Determined: (1) additional investigation necessary at SWMU 5; (2) additional remediation necessary at SWMU 12; and (3) NFA at SWMU 14 provided restrict access to soil.
November 10, 1999	B-131-CA-15	Approved abandonment of MWD-2 at CUB Tile Field (SWMU 12).
June 23, 2000	B-131-CA-10	Certification of closure of Meson Hill Landfill (SWMU 13) approved with post-closure care according to plan of April 15, 1997 and approved on December 12, 1997. (Log No. B-131-CA-6). A gate must be installed at the entrance and access restricted to DOE and Fermilab personnel only.
July 7, 2000	B-131-CA-12	NFA for inorganics in soil at SWMU 12 (CUB Tile Field). Additional info needed regarding potential radiological contamination at unit. Approved a groundwater monitoring program for unit.
July 24, 2000	B-131-CA-9 B-131-CA-13	A response to three submittals regarding the Meson and Neutrino Area (SWMU 15). Determined that corrective action for this SWMU is continued management and monitoring. The leachate in the sumps and retention pits at this unit must continue to be monitored and properly managed. A leachate management plan and groundwater monitoring program must be submitted to Illinois EPA for review and approval.
May 14, 2001	B-131-CA-14	Approved supplemental Phase II RFI report documenting the result of an additional investigation at the Village Machine Shop (SWMU 5). Extent of soil characterized and low level of Chlorinated Solvent detected. No health hazard at SWMU 5, provided an engineered barrier is placed over soils.
May 22, 2001	B-131-CA-18	A request is made to change the GW monitoring program approved on June 23, 2000 for the Meson Hill Landfill (SWMU 13).

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
June 5, 2001	B-131-CA-16	(1) concluded that no further action is necessary for soil at CUB Tile Field (SWMU 12) and; (2) established groundwater monitoring program at SWMU 12.
November 7, 2001	B-131-CA-20	Clarified required groundwater monitoring program for SWMU 12 (CUB Tile Field).
March 18, 2002	B-131-CA-21	Approved a September 17, 2001 submittal which: (1) indicated "a significant change" in concentration of total dissolved sulfate in groundwater at Meson Hill Landfill (SWMU 13) had occurred; and (2) contained an Assessment Monitoring Plan with 5 references. Report documenting results of activities in plan must be submitted to IEPA for review/approval.
April 22, 2002	B-131-CA-17	Approved proposed leachate and groundwater monitoring program for Meson and Neutrino Area (SWMU 15) (required to be submitted by our June 24, 2000 letter).
April 24, 2002	B-131-CA-19	Approved proposed engineered barrier over "Village Machine Shop" (SWMU 5). An ELUC must be established for SWMU 5, as well as for the Meson Hill Landfill and Railhead Storage Yard. Approved proposal to delay establishment of an ELUC until such time as final remedies have been selected for all SWMUs.
August 21, 2002	B-131-CA-22	Response to assessment groundwater monitoring report for the Meson Hill Landfill (SWMU 13) (submitted in accordance with Illinois EPA's March 18, 2002 letter). Illinois EPA agreed with conclusion that G107 does not represent background conditions for downgradient wells G101-G106. Required that a submittal be made to install a new background well and re-establish background values.
January 31, 2003	B-131-CA-23	Approved installation of a new background well at the Meson Hill Landfill (SWMU 13) (near SE corner of landfill east of wells G102 and G103); new well is G108. Procedures for establishing background groundwater quality and for

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
		implementing an overall groundwater monitoring program also set forth in letter. (Note: document submitted in accordance with Illinois EPA's August 21, 2002 letter).
May 3, 2005	Internal Illinois EPA memorandum	The Meson and Neutrino Area is no longer subject to the corrective action requirements of this permit, as it is not a solid waste management unit.

Attachment: Current Status of SWMUs Addressed in Fermilab's Corrective Action Program

SFN:JR\0890105010-RCRA-B131RM5-Approval.doc

**Current Status of the SWMUs Addressed
in the RCRA Corrective Action Program at Fermilab
Log No. B-131
June 2004**

<i>No.</i>	<i>Name</i>	<i>Status of Corrective Action (CA) Efforts</i>
1	East Booster Tower	RFI completed. No further CA required; see May 16, 1995 IEPA letter. (B-131-CA-1)
2	Ind. Bldg. No. 2	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
3	Ind. Bldg. No. 3	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
4	Machine Repair Shop	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
5	Village Machine Shop	Soil contamination present. Proposed engineered barrier approved April 24, 2002 (B-131-CA-19). Institutional control must still be established to provide for maintenance of barrier and to restrict exposure to soil beneath barrier. (see also May 14, 2001 letter)
6	Site 38 High Energy Storage Area	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
7	Laboratory No. 3	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
8	Laboratory No. 6	RFI complete. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
9	Site 37	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
10	Southeast Annex	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
11	Master Substation	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
12	CUB Pipe & Clay Tile Field	Investigation/remediation completed for soils. (see June 5, 2001 letter (Log No. B-131-CA-16)). Semi-annual groundwater monitoring program to continue in accordance with provisions of June 5, 2001 letter. Groundwater monitoring requirements clarified in a November 7, 2001 letter (B-131-CA-20).
13	Meson Hill Landfill	Certification of closure accepted June 23, 2000. Post-closure including groundwater monitoring, to be carried out until June 15, 2013 in accordance with letters of June 23, 2000 (Log No. B-131-CA-10); May 22, 2001 (Log No. B-131-CA-18); March 18, 2002 (Log No. B-131-CA-21); August 21, 2002 (Log No. B-131-CA-22); January 31, 2003 (Log No. B-131-CA-23).
14	Railhead Storage Yard	No further remediation required provided that access to the area is restricted and institutional controls are in place in accordance with IEPA letter of June 10, 1998 (B-131-CA-7 & 8).
15	Meson & Neutrino Activated Areas	The Meson and Neutrino Area is no longer subject to the corrective action requirements of this permit, as it is not a solid waste management unit
16	Site 38 Corral	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
17	Anderson Barn	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
18	Printed Circuit Laboratory	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
19	Oxidation Pond	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
----	IB2	RFI completed. No further CA required; provided a barrier is in place and exposure to the soil beneath the barrier is restricted. See IEPA letter dated July 22, 1994. (B-131). An institutional control must be established to ensure these requirements are properly implemented in the future.

